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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,685	07/13/2005	Rolf Deserno	DESE3002/FJD	3826
23364	7590	12/16/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			MURSKO, MARC J	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/509,685	DESERNO ET AL.	
	Examiner	Art Unit	
	Marc J. Mursko	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/12/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is being rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted art in view of Lynnworth(U.S. Patent 4,297,607).

As for claim 5, applicants admitted art teaches a sound or ultrasound sensor for the transmission and/or reception of sound or ultrasound, comprising; a piezoelectric element for producing and/or receiving sound or ultrasound through the floor, a matching layer between the piezoelectric element and the floor, and a metal ring gripping around the piezoelectric element and having an interlocking fit therewith.

The applicants admitted art does not teach a pot-shaped housing closed at one end by a floor, and a metal ring gripping around the matching layer.

In figure 1 of Lynnworth, Lynnworth teaches a pot-shaped(14) housing closed at one end a by floor(15). In figure 4a of Lynnworth, Lynnworth teaches that a metal ring gripping around a matching layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the applicants admitted art with the teaching of Lynnworth because by having a pot shaped housing closed at one end by a floor and having a metal ring gripping around a matching layer a proven leak tight seal

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tested in an environment of over 100 atmospheres using hydraulic fluids will be formed, as stated in column 3 lines 20-25 of Lynnworth.

Claims 6-8 are being rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted art in view of Lynnworth(U.S. Patent 4,297,607)and in further view of Schwald(U.S. Patent 5,866,815).

As for claim 6, in addition to what was explained above in the applicant's admitted prior art in view of Lynnworth, in figure 3 of Schwald, Schwald teaches a matching layer(36) has a groove extending annularly at, and around, its outer edge, situated opposite to said floor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the applicants admitted art with the teaching of Lynnworth because by having the matching layer have a groove extending annularly, the acoustic wave will be transmitted in a way that is more representative of how waves travel in nature, therefore giving a more natural sound.

As for claim 7, in addition to what was explained above in the applicant's admitted prior art in view of Lynnworth and in further view of Schwald, in figure 3 of Schwald, Schwald teaches a groove has a depth(T).

Schwald does not teach that such a coupling to the housing is small.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the applicants admitted art with the teaching of Lynnworth and the teaching of Schwald to make the coupling to the housing small because by having the coupling to the housing small, the acoustic wave will be

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reflected or transmitted back quicker and subject to less distortion than with a deeper groove.

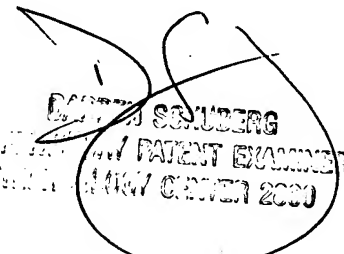
As for claim 8, in addition to what was explained above in the applicant's admitted prior art in view of Lynnworth and in further view of Schwald, it figure 1 of Schwald, Schwald teaches a damping material(35) is present in the housing(3).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc J. Mursko whose telephone number is 571-272-8394. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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